

## Peter Cunningham

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From: Kevin Plexico  
Sent: Tuesday, June 03, 2008 8:16 AM  
To: Peter Cunningham  
Subject: RE: THANKS FOR OUR MEETING THIS WEEK

Quite a bit of it, sure.

- 1997 - INPUT goes from floppy to online (yes, FSI did beat us to the punch, but I think I was a manager for about 6 mos at that point!)
- 1999 - INPUT hits about 100 subscribers. The Feds launch FedBizOpps.gov converting the Commerce Business Daily paper publication into a Web site. I remember running around town hearing how INPUT was now "long in tooth" since all the information is online
- 2000 - INPUT's business doubles (or quite nearly) and we get the Hawaii trip
- 2001 - INPUT launches S&L business and introduces small business sales team
- 2004 - INPUT launches Labor Pricing and Task Order offering
- 2002-2006 - INPUT grows from about 200 member companies to 1000 member companies

For what it's worth, I agree with you - we need blue and red ocean products.

Kevin

-----Original Message-----

From: Peter Cunningham  
Sent: Monday, June 02, 2008 6:35 PM  
To: Kevin Plexico  
Subject: Fw: THANKS FOR OUR MEETING THIS WEEK

Do you remember our history?

----- Original Message -----

From: Tom Hewitt <tom@tomhewitt.com>  
To: Peter Cunningham  
Cc: 'Jed Laird' <Jed@lairdsquared.com>; 'Maryann Hirsch' <Maryann.hirsch@knowledgegcg.com>; Pat Cunningham; 'Rachel Cunningham' <rjcrachel@yahoo.com>; Timothy Dowd  
Sent: Mon Jun 02 18:03:53 2008  
Subject: RE: THANKS FOR OUR MEETING THIS WEEK

Pete,

I talked to Dornan to get his memory of IT Data Base history. He reports the following:

- 1- In 1985 IDC had PIMS (Procurement Information Management Survive) It was consulting to the federal government and to industry. It was supported by a data base run by Bob Dornan and Whit Dodson. Their first customers were Univac/Unisys and CSC from Falls Church. The focus was on the spending analysis, who buys what?, agency procurements and trends.
- 2- In 1985 Bob Dornan joined Fed Sources and built Fed Mark to be electronic not paper.
- 3- In 1987 FSI had its First LOOK Conference to announce Fed Mark on a floppy Disk. The conference had government speakers including Frank McDough.
- 4- FSI had the first LAN for businesses such as ours using 10NET and FoxPro to quickly build the FSI electronic data base.
- 5- In 1995 FSI went online with internet using Net Publisher which Dornan believes to be first out by a big margin,



The point is that this business is now 20 years old with little change. No one is now making big money on data base. The commodity price squeeze is getting more difficult. As an example FSI announced their "State of the States" Conference for \$25.00 by web-cast.

I believe making money equates to excellence in Blue thinking.

The above is for what it's worth. It is not intended to influence Tim's thinking and planning.

Tom

-----Original Message-----

From: Peter Cunningham [mailto:[pac@input.com](mailto:pac@input.com)]

Sent: Monday, June 02, 2008 2:31 PM

To: Tom Hewitt

Cc: Jed Laird; Maryann Hirsch; Pat Cunningham; Rachel Cunningham; Timothy Dowd

Subject: RE: THANKS FOR OUR MEETING THIS WEEK

IDC never had a data base; the one that CSC (Gail Lepard) subscribed to was ours. She was instrumental in our starting the data base and our Washington office. We moved from paper to floppy to hard disk and then the Internet, usually before Dornan.

You are totally right on the issue of flat sales; I have told the team for two years it is the product, the market, or sales or a combination thereof.

I am sure Tim will sort out; I believe we constantly need new products, both Blue and Red; Purple would be acceptable!

Peter



**Structure of Market Information**  
**INPUT Output - Summary**

Printed: 6/21/2002

Code*	Level 1	Level 2
G - 01 - nnn	General	
EB - 01 - nnn	Electronic Business	
BP - 01 - nnn	Business Processes	
IN - 01 - nnn	Industries	
P - 01 - nnn	Personal (Individual, Consumer)	
IT - 01 - nnn	IT Unit/Buyer/User Environment	
T - 01 - nnn	Technology Environment	
PS- 01 - nnn	EB & IT Products & Services	
M - 01 - nnn	Markets (IT & EB Expenditures)	
V - 01 - nnn	Vendors	

\* "Z - 01 - nnn" Where "Z" is the initial, "01" is 2001 and "nnn" is the sequence number in the year



**Structure of Market Information**  
**INPUT Output - Detail**

Printed: 6/21/2002

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Code*      Level 1      Level 2
G - 01 - nnn General
EB - 01 - nnn Electronic Business
    Electronic Commerce (trade)
    Electronic Retailing
    Electronic Banking & Finance
    Electronic Services
    Other
BP - 01 - nnn Business Processes
    Accounting & Finance
    Administrative & Office Systems
    Business Intelligence
    Customer Care & Support Services
    Education & Training
    Engineering & Scientific
    Human Resources
    Sales & Marketing
    Supply Chain Management
    Other
IN - 01 - nnn Industries
    Manufacturing
    Transportation
    Telecommunications
    Utilities
    Retail
    Wholesale
    Banking & Finance
    Insurance
    Health Services
    Education
    Services
    Central (Federal) Government
    Other (State & Local) Government
    Miscellaneous Industries
P - 01 - nnn Personal (Individual, Consumer)
IT - 01 - nnn IT Unit/Buyer/User Environment
    Finance & Budgets
    Organization & Management
    People
    Processes
    Other
T - 01 - nnn Technology Environment
    Architecture
    Infrastructure
    Security
    Other
M - 01 - nnn Markets (IT & EB Expenditures)
PS- 01 - nnn EB & IT Products & Services
    Electronic Business Services
    Business Process Services (Including Business Process Operations)
    Electronic Content Services (Data Base Services, Portals, Search Services, etc.)
    Computer Systems
        Level 1 Enterprise Servers
        Level 2 Distributed/Departmental Servers
        Level 3 PCs (Desktops & Laptops)
        Level 4 Internet Access, Handheld, & Personal Devices (Mobile Phones, PDAs, etc.)
        Level 5 Embedded Systems
    Telecommunications & Network Infrastructure (Lines, switches, etc.)
    Storage
    Input & Output
    Systems Software
        Systems Management: Operating Environments (OS)
        Operations Management (Planning, Scheduling, etc.)
        Software Management (Development Tools, etc.)
        Information, Content Management (DBMS)
    EB & IT Operational Services
        Infrastructure Services (Data Center Outsourcing, Hosting Services, Desk Top Services, etc.)
        Applications Services (Outsourcing/Processing of IT and Internet/Web Applications)
    Network Services
        Access Services (ISPs, VAnTs, etc.)
        Outsourcing & Management Services
        Applications & Other Services
    Applications Acquisition, Development and Support
        Applications Software Products
        Systems Integration
        Turnkey Systems
        Professional Services, (Package Implementation, Web development, Programming Education & Training, Etc.)
    Customer Services
        Equipment, Software and Network Support
        Environmental Services (Asset Management, Performance Measurement, etc.)
        Security Services (Business Continuity, Disaster Recovery,
V - 01 - nnn Vendors
    Individual Vendors
    Vendor Groups
    Funding & Valuation Issues
    Other
**Z - 01 - nnn* Where "Z" is the initial, "01" is 2001 and "nnn" is the sequence number in the year
  
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# **Structure of Market Information** **Presentation Material Filing**

Printed: 6/21/2002

Level 1	Level 2	Level 3
Titles		
Contents		
Introduction		
	Objectives	
	Scope	
	Methodology	
	Other	
History		
Definitions		
Environment		
	Economic	
		GDP
		Inflation
		Labor
		Exchange rates
		Other
	Legal & Regulatory	
	Technical	
	Other	
Buyer/User	Environment	
	Organization	
	Processes	
	Applications	
	Budgets	
	Information Flows	
	Other	
Technology	Environment	
	Architecture	
	Infrastructure	
	Security	
	Other	
Markets		
	Characteristics	
	Issues	
	Analysis & Forecasts	
		Overall IT & EB Expenditures
		Assumptions
		Definitions
		Environment (Legal, Financial, Technical, Economic, etc.)
		Issues
		Forecasts
		Reconciliations
		Other
		Market by Geography (Repeat sub-categories as above)
		Market by Product/Service Category (Repeat sub-categories as above)
		Market by Industry Sector (Repeat sub-categories as above)
		Market by Process (Repeat sub-categories as above)
		Market by Buyer Size (Repeat sub-categories as above)
Vendor Environment		
	Types of vendor	
	Market Shares	
	Individual Vendors	
	Acquisition Impact	
	Funding Issues	
	Market Valuations	
	Other	
Other		
Conclusions		
	Opportunities	
	Recommendations	



## INTRODUCTION

Internet a internet, Web a web. GB

Europe vs US

WHO ARE WS. - WHAT ABOUT THYS BFB / BFR or  
GB

1999 STAGNUS

1999 - hype, stand or both

- BTC old news
- shift for sell vs buy - exchange - now HUBS
- BTD - channel reflect. - disintermediation  
bite the bullet.
- Phase 2 - vs Phase 1

2000

PROFITABILITY - EBITDA (EDITDAR)

VALUE - COST 'STRUCTURES

IT AND GB - 10%.

SOURCES - SECURITY, SUSTAINABILITY,

INDUSTRY

EG - BANKS - VOTERS.

FINANCE - EX, MORGAN - SHAW. MORTGAGES (14,000

RETAIL - WALMART - EDI / - MRS. VISITS CITIZENS

PARTNERSHIPS

PROCESSES / BUS SUPPORT / INTERNAL / VS EXTERNAL

INFORMATION - CRM - FUTURE. PARTNERSHIPS

SHIFT SITES TO MARKETING

TECHNOLOGY - WARE - CMETS -

MULTI-CULTURAL -

WHOLE RANGE SERVICES - CHANGES

# Guest List

Mr Graham Henderson	Director of Finance	Alba Life
Mr Malcolm Surgenor	IT Manager	Alba Life
Mr Paul Tomlin	VP of Information Systems	Avis Europe
Mr Chris Brobbel	Managing Director, IT Centre	Bank of Scotland
Mr David Halsey	IT Director	BG plc
Mr Mike Wood	Controller Operations	BT Group Finance
Mr Rob James	Director of Partnerships	CAPITAL BANK PLC
Mr Stuart Kinsey	Director, Business Banking (Utilities)	CAPITAL BANK PLC
Ms Jan Pinkerton	IT Strategy and Communications Manager	Clifford Chance
Mr Dave Crabtree	Head of Supply/Management	The Co-operative Bank Plc
Mr Les Clough		Co-operative Insurance Society Limited
Mr Colin Moore	Deputy Head of ISD	Department for Education and Employment
Ms Annette Walker		Department for Education and Employment
Mr Malcolm Whyte	Head of IT	Disability Rights Commission
Mr Paul Foster	Internet Development Manager	Dun & Bradstreet (UK) Limited
Mr Clive Whincup	Head of IS Planning & Architecture	First Banking Systems Ltd
Ms Elizabeth Owen	Managing Director, ISS	Legal & General Assurance Society Limited
Mr Nigel Mason	Chief Executive Officer	myshares-online
Mr Keith Mosely	IS Group	Thames Water Utilities Limited
Mrs Pam Bingley	IT Projects Director,	Whitbread Pubs, Bars and Restaurants
Mr Graeme Nasey	Business Change Manager	Yorkshire Water

GOS

SECURITY  
SCALABILITY  
INFRASTRUCTURE  
PAYMENT  
ORGANIZATION

FOCUS

SIMPLE FIRST  
EXTERNAL NOT INTERNAL  
EASY & HARD

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SELF SERVICE

ONE TOUCH

BUZZ

CHANGE PROCESS

OUTSIDE IN NOT INSIDE OUT

PERSONAL

WALK THE WALK.

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ORG IN 3 YEARS

**F.I.GROUP PLC**  
**Executive e-Business Symposium**

**Le Manoir aux Quat' Saisons**  
**Thursday 11<sup>th</sup> May 2000**

**FI Hosts**

Tricia Gardom	Group Marketing Director	F.I.GROUP PLC
John Pocock	Group Strategic Development Director	F.I.GROUP PLC
Kathy Dite	General Manager, e-Business Practice	F.I.GROUP PLC
Ron Davis	Executive Director - Services	F.I.GROUP PLC
Martin Pickering	Account Director, DFEE	F.I.GROUP PLC
Susanne Collinson	Account Director, Legal & General	F.I.GROUP PLC
Steve Richards	Commercial Director, e-Business Practice	F.I.GROUP PLC
James Johns	Head of Business Development, e-Business Practice	F.I.GROUP PLC
Helen Carr	Sales Consultant, Services	F.I.GROUP PLC
Martin Prescott	Principle Sales Executive, Finance	F.I.GROUP PLC
Sheila Beck	Consultant	OSI
Susan Johnson	Senior Business Consultant	F.I.GROUP
Robert Posner	Corporate Communications Manager	F.I.GROUP
Steve Weston	Managing Director, Outsourcing	F.I.GROUP
Greg Baker	Sales Director	F.I.GROUP PLC

**Contents**

- 1. Introduction - About INPUT**
- 2. Electronic Business (EB)**
- 3. Competition**
- 4. Conclusion - IT Marketing in the 21<sup>ST</sup> Century.**

**Introduction - About INPUT**

Peter Cunningham is the founder and president of INPUT, an IT industry marketing services company.

INPUT, founded in 1974, provides marketing communications and research services to IT vendors and decision support information to IT buyers. INPUT has offices in Frankfurt, London, Mountain View, New York, Paris, Tokyo and Washington, D.C.

INPUT serves a wide range of clients including:

SAP, Baan, IBM, Toshiba, Fujitsu, Hitachi, France Telecom, Cap Gemini, debis, Digital, Hewlett Packard, Sun, Computer Associates, FI, Comdisco, Oracle, Ernst & Young, AT&T, BT, DT, NTT, ICL, SNI & SBS, Microsoft, EDS, CSC, Boeing, Andersen Consulting, and Coopers & Lybrand.

INPUT has successfully predicted major changes in IT including the microcomputer revolution, trends to outsourcing and systems integration, growth of software applications such as SAP, the explosive force of the Internet and now the emergence of Electronic Business.

And, just as with everybody else, INPUT's business has been changed by EB!

**Electronic Business**

EB represents the change of IT from a support function to an embedded part of business processes. The implications for all aspects of our society are enormous: digital money, for example, will revolutionise the way we pay for products and services and the industries involved such as banking, retailing and government.

EB is accelerating the growth of the IT software and services business. Also, as the price/performance of technology improves, thresholds of opportunity are crossed and software and service markets blossom.

**The world wide market for software and services will become a \$1 trillion industry by 2002.**

IT no longer follows, it leads! In what is now Software as well as Silicon Valley, there are amazing advances in communications, processing, storage, and particularly software and new forms of application. There is a revolution occurring that is about to affect the whole of the IT industry. We are embarking on the fourth wave of computing; mainframe, minicomputer, microcomputer and now network computing. As telecommunications gets faster and cheaper what will happen to the distribution of information storage and processing? Will we go back to large, integrated systems? Will timesharing re-emerge?





The most important leading "technology" is **The Internet** which is entering its third phase; the first was a data transfer medium (what Jim Clark of Netscape has referred to as the "data dial tone"), the second was an information searching and distribution tool (the Web) and the third is a true business development and operating environment.

In 1994 INPUT predicted 200 million people connected to the Internet by 2000; we were conservative. When will it reach a billion? Internets and Intranets are to communications what open systems were to computers.

These changes pose strategic and tactical challenges to the IT function. Will it disappear? Certainly the relationships among IT suppliers, IT departments and business process owners are changing. Services such as business process outsourcing, EAS based outsourcing and customer care services are set to boom.

One of the most important parts of EB is Electronic Commerce (EC); it is changing to the flexible, dynamic form enabled by the Internet. The EMU will affect the adoption of EC in Europe. New payment methodologies such as digital money or e-cash are rapidly being adopted to facilitate EC.

Security is everybody's primary concern and it is being addressed. IT Security includes business continuity services, access protection including firewalls and encryption, and the Y2K (millennium) problem.

Whole industries are affected. Electronic retail banking revenues, for example, will increase from \$5 billion in 1996 to \$300 billion by 2002. Over the next 5 years financial organisations will spend over \$200 billion to provide electronic banking through smart ATMs, kiosks, home banking, smart card technology and voice systems.

### **Competition**

But IT wars are, and will be, rife;

- PADs (personal access devices) such as PCs, IPCs (Larry Ellison's "toasters"), entertainment devices (TVs, games, etc.), PDAs, etc.
- Servers and their operating systems; NT versus UNIX; SGI, HP and Sun versus Compaq, IBM and other "Intelco" systems;
- Telecommunications wars may be the largest of all; political, commercial and social.
- Communications suppliers such as Cisco, 3Com, etc.; will the Internet replace LANs?
- Software; will applications based on languages like Sun's Java and networked objects replace client/server applications? What will happen to data base software systems?
- Services; will there be industry consolidation around the mega-companies with 200,000 staff?

In the next few years we will see raging wars fought in the industry; the first skirmishes between Microsoft's Gates and Sun's Scott McNealy and Netscape's Clark are the forerunners of the larger battles ahead. And Lou Gerstner is right in the middle of it; watch out for IBM!

INPUT

**Conclusion - IT marketing in the 21<sup>ST</sup> Century**

The number of people involved in IT decisions will increase by a factor of 5 to 10 in the next 10 years. The information they need will be different. Their identity, role and involvement will vary with time as their business process needs change.

The methods and cost to vendors of reaching prospects will alter dramatically. The result is that IT marketing expenditures will grow from \$50 billion in 1997 to over \$100 billion by 2002.

INPUT has changed to address these challenges. We have to in order to survive! So has everyone else. Our goal is to be:

***"The premier channel connecting IT vendors and buyers."***

Check out our Web site at [www.input.com](http://www.input.com)!

Thank you.

INPUT

Colin Barker reports on vendors' very latest moves at last week's CSSA conference

# Outsourcing 'spells end for IT managers'

IT MANAGERS could well be joining the list of endangered species, according to Peter Cunningham, president of research analysts, Input.

Speaking at the CSSA conference in Bournemouth last week, Cunningham warned that over the next 20 years, the IT manager would vanish as companies outsource their IT units.

'You don't have a dedicated manager to look after your power plant so why should you have one for IT', he said. Cunningham based this on the lessons learned in the electrical industry combined with the impact of the millennium problem.

Cunningham compared the

situation with a debate, which raged at the end of the 19th century over which would be the largest city in the world - Buffalo in the US, which is close to Niagara Falls, North America's largest source of hydro-electric power, or Liverpool in England, next to the largest known coal field.

But, according to Cunningham, networking those power sources upended these assumptions. Cunningham argued that organisations no longer should assume they have to have their own IT department. 'The network is changing; companies don't need their own dedicated source of IT power.'

The year 2000 issue will

give the real impetus to outsourcing, according to Cunningham. The US government has 350,000 people working in IT and by the end of the year 100,000 of them will be working on year 2000. With another 50% of them working on routine care and maintenance, this does not leave enough people to develop new systems.

'The idea that new work will not be done for the next three years is untenable; it will be outsourced and once it is outsourced it won't come back', Cunningham said.

He added that this pattern could well be repeated across government and industry in the UK.

be seen 'how much of this money will be allocated to IT'.



## IT Industry will be



**INPUT\***

IT Intelligence Services

1881 Landings Drive  
Mountain View, CA 94043-0848  
Tel. (415) 961-3300  
Personal Office Fax (415) 965-9103  
Personal Home Fax (415) 854-0107

From the office of  
Peter A. Cunningham  
President

**FAX TRANSMITTAL FORM**

Date: 12/27/94  
To: Name: UNIT MANAGERS P.L.  
Tel./Location: \_\_\_\_\_  
Co.: \_\_\_\_\_  
Fax No: \_\_\_\_\_  
From: Name: Peter Cunningham  
Subject: INTERNET DATA

Confidential: ☒ Y ☐ N  
Urgent: ☒ Y ☐ N

Page: 1 of 6

File: Chron  
Contact  
Other:

Please find attached notes on my presentation materials  
used as the basis for the Internet Pen Release.

(Note: Bob DeLox, send me a list of editors your pen release was  
mailed to and a copy of the release.)

The charts you should have already or Anne will send to you.

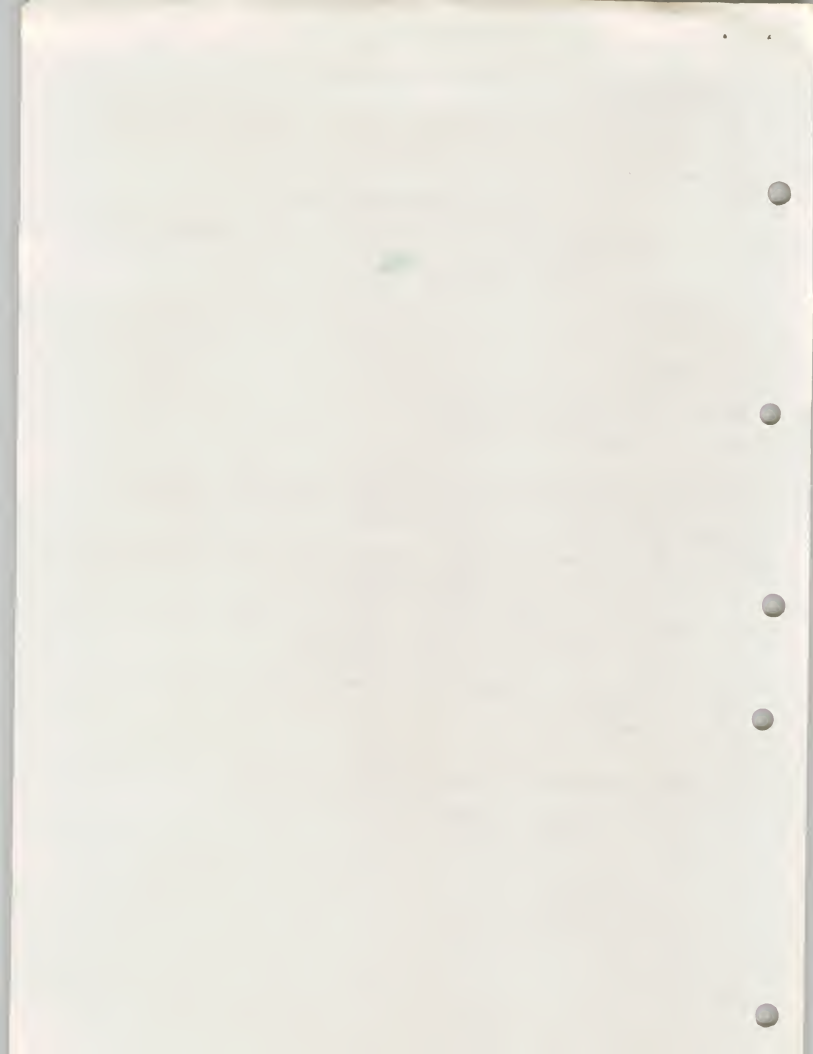
I will add notes to the Slide presentation

Also, I have a spread sheet with the raw detected data  
being constructed

PLEASE: let me have any criticisms, comments or suggestions

NOTE: the analysis is proprietary and confidential.

Thanks





**Notes to Internets Presentation on November 25, 1994 in Tokyo**  
**Peter Cunningham**

**Prepared after meeting on 11/19/94 (?) with Bob Goodwin, Angela Hey, Wilson Haddow and John McGilvray.**

Chart NO. MMONo-19

At the moment there are 3.2 million estimated servers/hosts connected to the Internets. (Note that other estimates of the number of connections of hosts to the Internets reach as low as 700,000 There are 20,000 Companies connected to the Internets.  
The prime sources of host connections are: government, education, research and military  
It has been estimated that the growth rate of commercial connections is 70% per year and of non-commercial is 60%.

The higher rates of growth are internationally where penetration is low

Chart NO. MMONo-20

Current estimates of the number of Internet clients are measured by the number of Internet Ids which are about 23 million and growing by 1 million per month.. For forecasting purposes I have used 24 million as the base at the end of 1994.

I used a base of 1 million institutional Ids and 23 million individual Ids.

I projected that this would grow to 200,000,000 by 1999, of which 50 million would be institutional ( 30 million US and 20 million non-US ) and 150 million individual ( 75 million US and 75 million non-US.

Vint Cerf, one of the founders of the Internet, estimates that there will be 300 million people on the Internet by 1999 ( Wired magazine interview).

We assume:

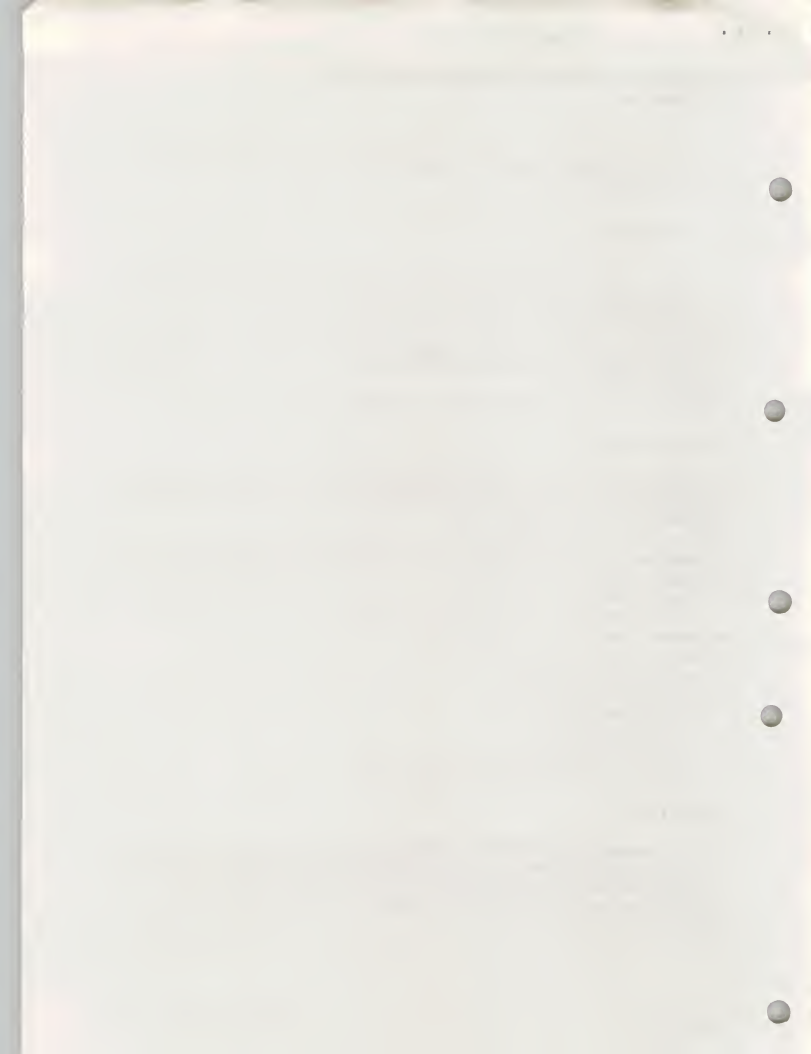
- More than one ID per person
- More than one ID per Institution
- More than one ID per host
- More than one host per ID
- More than one institution per host
- More than one user per host ( 3 to 10 users per host)

Chart NO. MMONo-21

How do you measure the population? in devices, or people or Ids?

I have assumed that the number of unduplicated people connected to the Internets today is about 15 million; that is a ratio of 25/15 in terms of the number of Ids per person.

I believe that the number of unduplicated individuals connected to the Internets will reach 60 million in the US by 1999.



**Notes to Internets Presentation on November 25, 1994 in Tokyo**  
**Peter Cunningham**

It is vital to divide the Internets' users into groups because there are huge differences among these groups: researchers at universities are vastly different from children at home for example. One of the values added that INPUT provides is the categorization and analysis of these groups. Simple estimates of the market can be made as follows:

- If each user spends \$50 per month then the Internet market is \$50x12x15 million or about \$9 billion in 1994. This is obviously not happening.
- If we assume only about 10% are real users ( 1.5 million) then the market is \$50x12x1.5 million or about \$1 billion. This is probably more realistic at the moment.

Again it is important to differentiate among the various user groups

**Chart NO. MMONo-22**

So the overall Internet market is about \$1 billion in 1994.

This is broken down as follows:

- The total revenues of the regional Internet providers like NetCom, BarrNet, CerfNet, PCS and the others is about \$100 million. I assume this is about 50% of the total network services companies; others are very small local providers and the very large network services providers that are just getting into the Internet ( being dragged "kicking and screaming").
- Total software product expenditures are of the order of \$200 million as most of the products are inexpensive. It is costing about \$20 for people to sign on to Internet: so \$20x10 million is \$200 million.
- This is probably an underestimate as it does not include the additional software purchased by existing users. On the other hand, some Internet vendors "give away" the sign up software.
- Other services are about \$600 million including professional services, systems integration, advice and consulting, advertising services, etc.

This does not include the communications charges that are in addition to the charges of the network services companies.

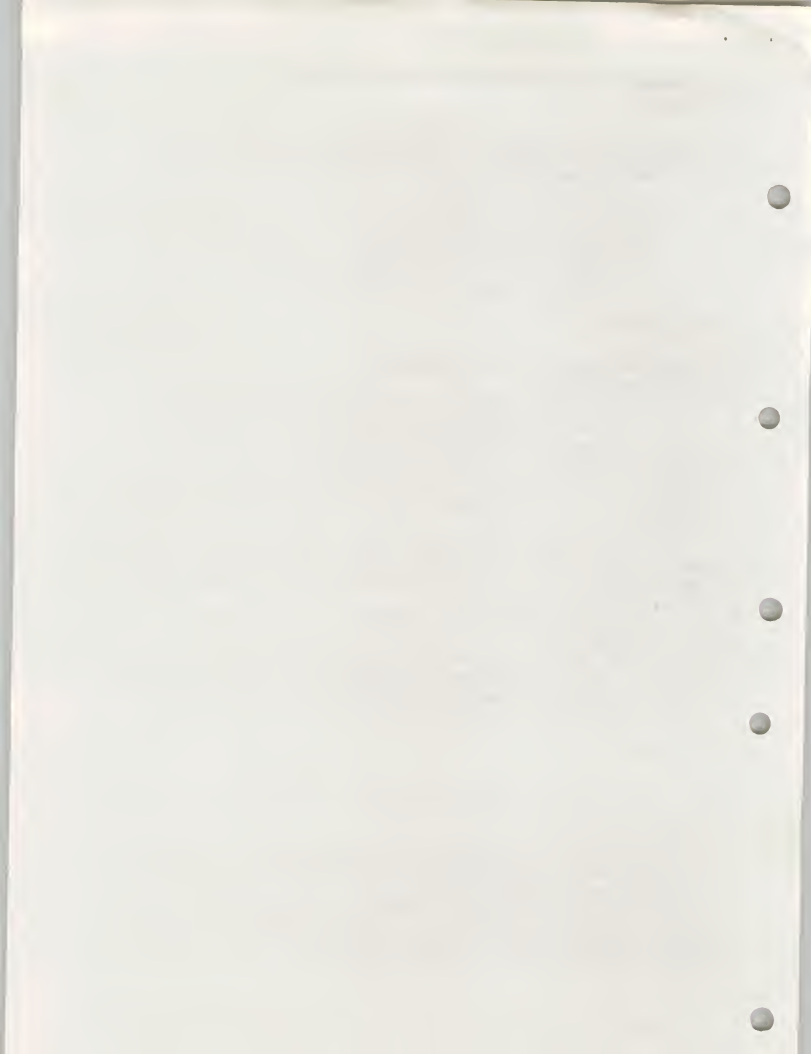
On reflection, I would probably increase the software product market to \$400 million to include all the applications software including games that is being built around the Internet. Some of this software is being provided through the Internets themselves so the expenditures for that would be in the network services category.

**Chart NO. MMONo-23**

In the press release I stated that the market in 1999 would be \$200 billion That is \$1000 per user per year if we use the population number of 200 million.

This is broken down as follows:

- In the US there will be 30 million workers that use the Internets in 1999. They will each have a device ( I am assuming one device per person ) Institutions will pay \$30 per year per device for Internet software. This market will therefore be \$30x30 million or about \$1 billion.
- There will also be about 20 million servers connected to the Internet (from 1995 every server operating system will include automatic access to the Internets). Institutions will pay about \$2000 per server per year for software products ( systems and applications ). Therefore this market will be \$2000x20 million or \$40 billion in 1999.



# **Notes to Internets Presentation on November 25, 1994 in Tokyo** **Peter Cunningham**

- We also assume that there will be about \$2000 of service and other expenditures per year for each server. This would include network services and content use. Again, therefore this market will be about \$40 billion in 1999.
  - In terms of penetration, 30 million workers in 1999 will probably be a small proportion of the working population which is about 135 million in 1994. We assume it will be about 140 million in 1999, so penetration will be just over 20%. Again this may be an underestimate as there are more knowledge workers but the many service, agricultural, field and manufacturing workers may not be connected.
  - There will be 60 million recreational users in the US. ( Note that we assume that every worker will also be a recreational user. There will also be students and older people that use the Internets. Seniors are among the fastest growing set of users of PCs and the Internets.) The population of the USA will be of the order of 300 million, so this represents a 20% penetration. Also, there will be a very strong political drive to make sure that the Internet is open access to the disadvantaged: universal access will be very important.
  - If each recreational user spends \$35 per month ( using the cable analogy ) then this market will be  $35 \times 12 \times 60$  million or \$25.2 billion on Internet services.
  - If each recreational user spends \$150 per year on software products ( including games and educational software) then this software products market is  $150 \times 60$  million or about \$10 billion
  - This therefore gives a market in the USA of about \$115 billion
- Several analogies have been drawn: for example, to the telephone or the cable markets. However there are substantial differences. The telephone market is static while the Internet market is dynamic. Both the TV and cable industries are one way while the Internet market is two or multiple way.
- In the chart the \$120 billion market number is most representative of the current environment. The \$1,200 billion number is only feasible if all entertainment and news is provided through the Internet. Even at that, it is an unreal number. But we should remember that on average each household spends several hundred dollars per month on these types of activities
- The worldwide markets are not going to grow as fast because the discretionary income is not as high and the communications costs ( which are NOT included in these numbers except as they are part of the network services vendor charges) are high. Therefore the US market will represent about 60% of the market.

## **Chart NO. MMONO-24**

There is a lot of interest in DigiCash. Cash in the USA costs about \$60 billion a year to handle. Microsoft and Intuit are an interesting combination. It is giving the banks fits. It can attack the banking market by giving control of their money back to the individuals and the payers.

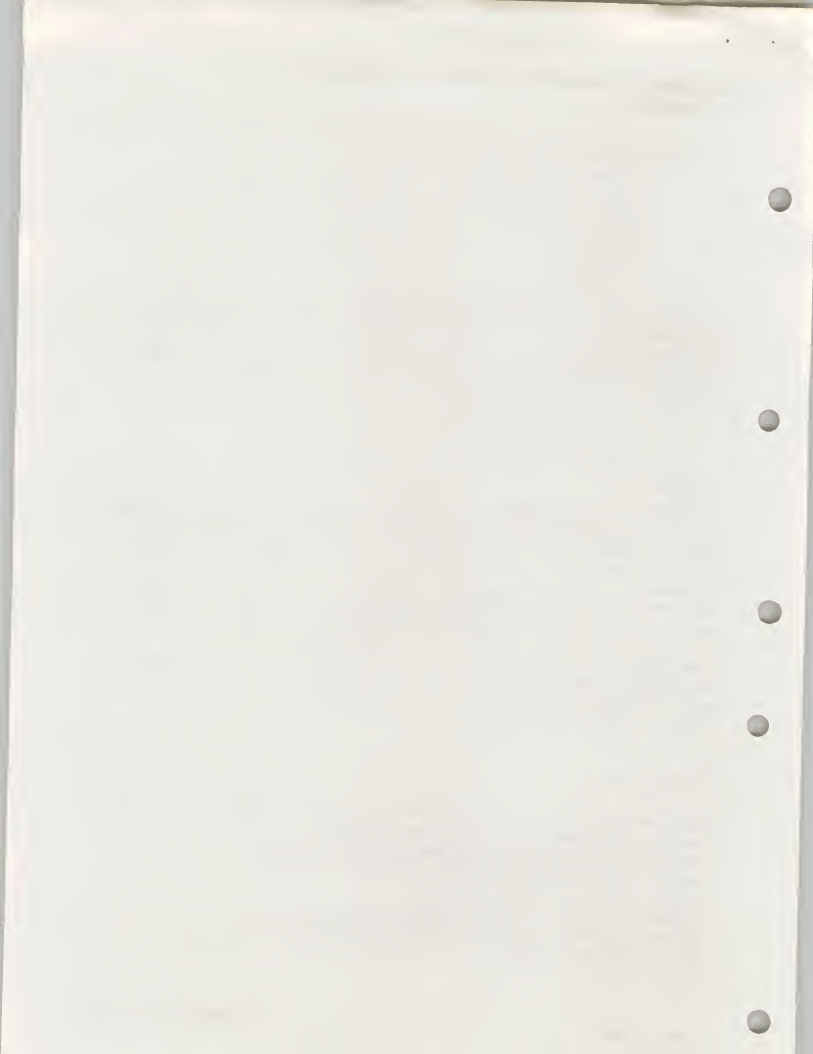
Companies involved already are NatWest, VISA Citibank ( ECARD )

Opportunity to replace "\$ bills" with "Bill \$!"

Electronic bill paying will relate to electronic buying.

Why download money from a bank? You can have a cyberspace bank.

One disadvantage ( or advantage) of cash is that it is anonymous.



## Notes to Internets Presentation on November 25, 1994 in Tokyo Peter Cunningham

IRS is very interested in the concept of electronic cash because it could make the whole filing process obsolete.

Internet does not do transactions .... Yet!

Note the average number of hours spent by an American in front of TV is 1500.

### Chart NO. MMONo-25

The BTB market does not include Government-to-Business or Government-to-Government markets.

The \$60 billion EC market is done mostly by email.

The total EC markets must include all interactions among individuals, corporations, governments and other institutions.

Traditionally, the EC market has only dealt with BTB and not personal-to-business (PTB) transactions.

INPUT forecasts that BTB EC will reach \$250 billion by 1999.

### Chart NO. MMONo-26

The questions are:

- How much business will be done on the Internet by businesses?

Of the BTB market, 80% will be done on other than Internet networks because of all the security, transaction and bill paying problems presently associated with Internet for the EC purpose. Much of the 20% will be related to the technology industry, including the ordering of software and hardware.

As Internet numbers replace fax numbers as identifiers, commerce done through this method will switch to the Internet.

Therefore, the total BTB EC market on the Internet will reach \$50 billion by 1999 in the USA.

There will be at least 1 million businesses that will be using the Internet in some fashion. This gives a business level of an average of \$50,000 per business per year. Obviously there will be large differences by type of company.

- How much business will be done on the Internet by individuals/consumers?

In the USA there will be 60,000,000 unduplicated individuals connected to the Internets. If on average each does \$1000 worth of business per year including ordering computer hardware

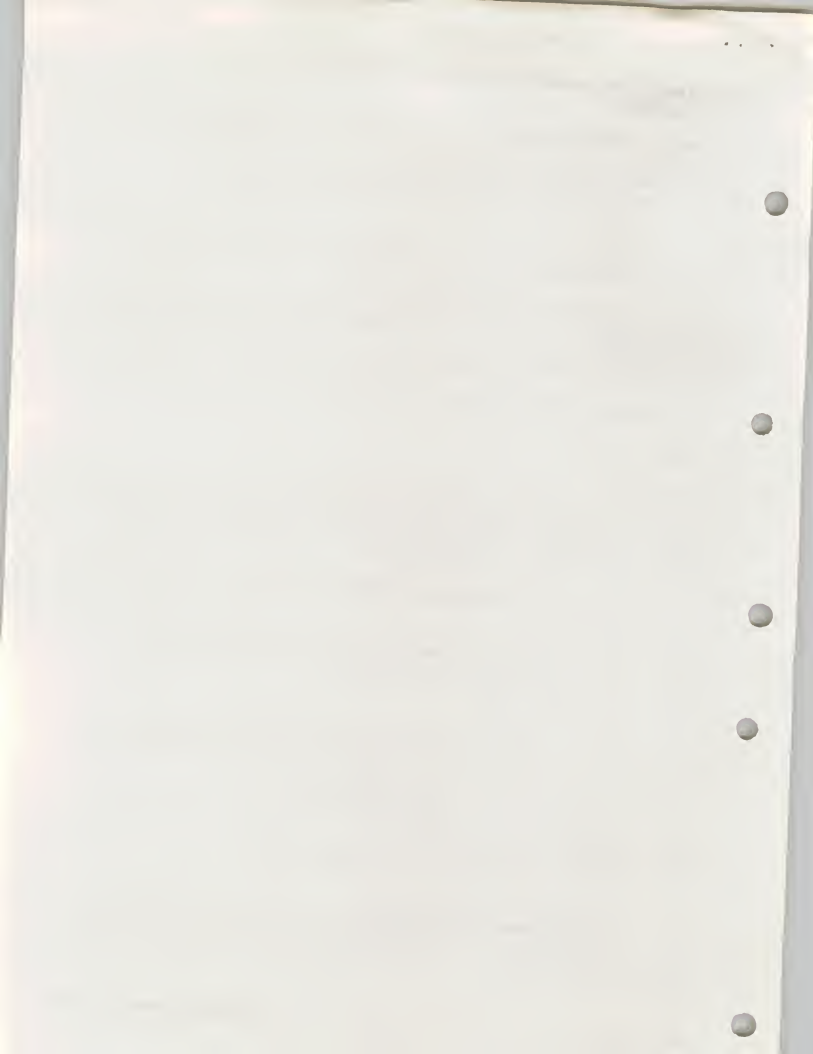
and software, then the total EC market will be \$60 billion.

Sales of financial and other services through the Internet will be large. Sales of auto services and gasoline will be small. Although the Internet will be connected to the mobile passenger location systems so there will be interfaces even in these areas.

The electronic catalog market alone will be over \$10 billion.

- How much business will be done internationally?

This a very interesting question. One of the impacts of the Internets will be the availability of product and service prices on an international basis. This will have a huge consumer impact. As they become aware of price variations, consumers will become more intelligent buyers. Through





**Notes to Internets Presentation on November 25, 1994 in Tokyo**  
**Peter Cunningham**

the Internet they will also be able to order products and services. The free trade and trading block areas will theoretically allow for the free flow of products and services without duties. The impact on trade will be enormous in the 21st century; we will start to see the impacts in the last few years of this century. The social, political and commercial impacts of this revolution cannot be overemphasized!!!

Internet is in the same situation as TV and radio were in their early days. No one then could project how they would turn out.

Note- we already have NECX, the desktop channel, and the Internet shopping network.



	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		
	Millions																		
Individuals with Internet access	23	50	100	150	180	215	250	300	350	425	500	600	700	775	850	925	1000		
Period 1995 to 2000 adoption primarily through PCs. Thus rapid expansion then slowing of growth rate as penetration increased.																			
Period 2000 to 2010 adoption primarily for wider audience than PC users; use of cheap IADs increases																			
Period 2010 to 2020 adoption in 3rd world through very cheap, pico computer/communications devices and cheap wireless communications including satellites																			



Level 1	Level 2	Level 3
Titles		
Contents		
Introduction		
	Objectives	
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Environment		
	Economic	
		GDP
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		Exchange rates
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	Legal & Regulatory	
	Technical	
	Other	
Other		
Buyer/User Environment		
	Organization	
	Processes	
	Applications	
	Budgets	
	Information Flows	
	Other	
Technology Environment		
	Architecture	
	Application Management Structures	
	Security	
	Other	
Markets		
	Characteristics	
	Issues	
	Analysis & Forecasts	
		Overall IT & EB Expenditures
		Assumptions
		Definitions
		Environment (Legal, Financial, Technical, Economic, etc.)
		Issues
		Forecasts
		Reconciliations
		Other
		Market by Geography (Repeat sub-categories as above)
		Market by Product/Service Category (Repeat sub-categories as above)
		Market by Industry Sector (Repeat sub-categories as above)
		Market by Process (Repeat sub-categories as above)
		Market by Buyer Size (Repeat sub-categories as above)
Vendor Environment		
	Types of vendor	
	Market Shares	
	Individual Vendors	
	Acquisition Impact	
	Funding Issues	
	Market Valuations	
	Other	
Conclusions		
	Opportunities	
	Recommendations	



**Electronic Business & IT Software and Services Markets, 2000 – 2003**

These forecasts are the very top numbers for the Electronic Business & IT Software and Services industry.

<u>Country</u>		<u>2000</u>	<u>2003</u>	<u>CAGR (%)</u>
<b>USA</b>	<b>(\$Billions)</b>	<b>393</b>	<b>628</b>	<b>17%</b>
<b>Britain</b>	<b>(Euro Billions)</b>	<b>36</b>	<b>58</b>	<b>17%</b>
<b>France</b>	<b>(Euro Billions)</b>	<b>28</b>	<b>39</b>	<b>12%</b>
<b>Germany</b>	<b>(Euro Billions)</b>	<b>30</b>	<b>48</b>	<b>17%</b>

The European numbers are in Euros. We have used a baseline from 1998 in ECU/Euro for France and Germany and Pounds sterling for Britain that have then been converted into Euros at a rate of 1.635 Euros/Pound Sterling. The US is in dollars.

What exchange rate we should use for Euros and Dollars today is a mystery. We are using 0.90 Euros/USDollar.

There has been a dramatic shift in the last few years in the relative size of the European and US markets. This is largely but not entirely due to the impact of the Internet and the New Economy. Electronic Business is only now really getting started.

The forecasts are based on shrinkage in a number of areas in 2000 versus 1999:

- Reallocation of internal resources from Y2K has severely hit the "resource" or "body shop" business in all countries.
- Loss of credibility on the part of internal IT Departments and external IT consultants relative to the Electronic Business revolution. Resultant transfer of responsibility to operational departments.
- Suspension of "normal" IT activities while companies decide what they will do about Electronic Business. (No one will commit to a \$10 million logistics system that may be replaced by participation in an electronic exchange.)
- In the US the transfer of work to India is also having an impact.

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- The ERP recession (that we forecast) has had a major impact on Applications Software and associated Development Services.

However, there is such a revolution in the economy and the industry that the growth rates over the next 5 years will be very strong wherever the transition to the New Economy is allowed. Germany is limited by its labor laws but it does not have as strong a cultural barrier to Electronic Business as in France. German execs. want to change but are constrained; French execs generally do not want to change and they are also constrained. Britain is in a strong position and has little constraint. Although many execs are uncomfortable with the Electronic Business change; they recognize that it is necessary.

The areas of rapid growth are related to the Internet and EB environment.

- They include many operational and network services. (Deregulation is strongest in the UK followed by Germany and then France).
- Specific opportunities include co-hosting, network management services of all kinds (Cisco implementation), call center/help desk support services, Web/backend integration, exchange and collaborative processing systems, video/storage processing, wireless services, IAD access, consumer product Web enablement, MCommerce, etc.
- There are huge development and software related service opportunities involved in these areas.
- The Electronic Content Services market is particularly strong in the US with Portals/Vortals, exchanges, Search services, etc.

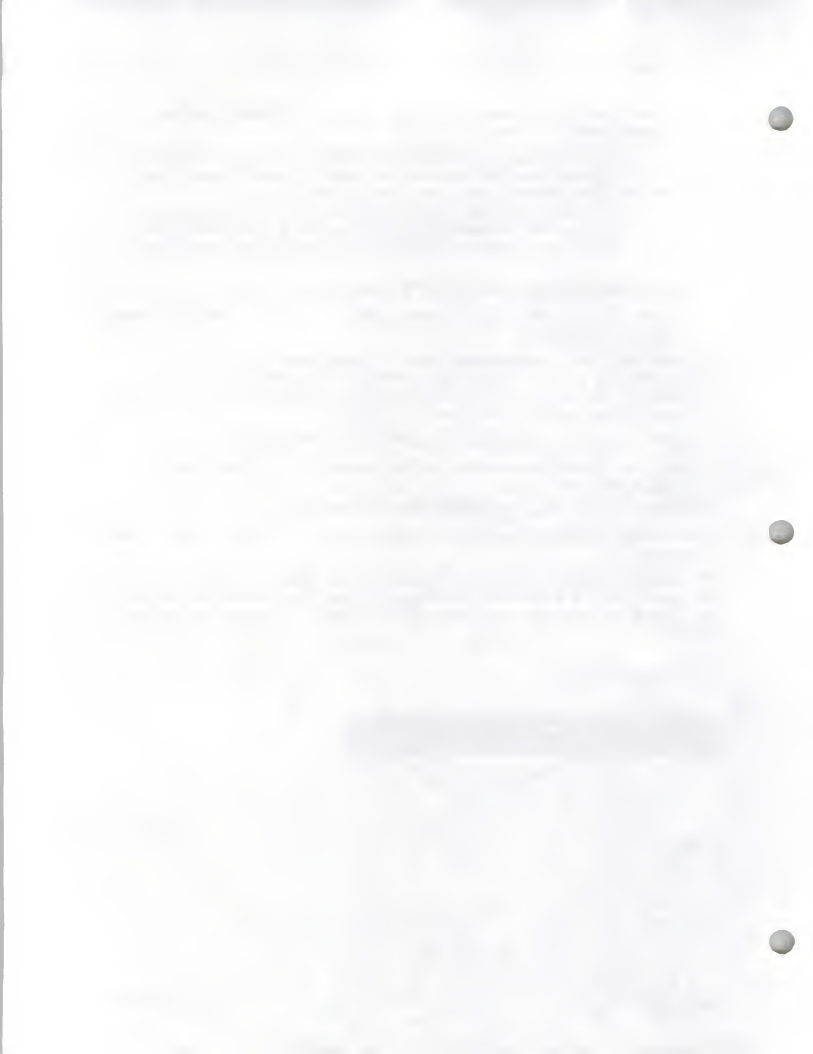
Every new technology brings new services opportunities and business.

The Y2K debacle and the integration of IT into business process exacerbate the move to external services from in-house.

This change does not necessarily benefit the "old" companies in the industry; many will fail or be bought. The vendors in the EB & IT Software & Services Industry are just as much affected by the revolution as the customers. Any company that has not changed and does not change its basic operations and metrics will fail.

INPUT, October 21, 2000

**Contact INPUT at [info@input.com](mailto:info@input.com) or  
<http://www.input.com>**



	1998		2003			
Professional Services	0.2	7.6	0.16	42.0	42.0	7.6
Systems Integration	0.05	1.9	0.07	18.4	18.4	1.9
Outsourcing	0.02	0.8	0.1	26.2	26.2	0.8
Processing Services	0.02	0.8	0.07	18.4	18.4	0.8
Network Services	0.29	11.1	0.25	65.6	65.6	11.1
Applications SW Products	0.15	5.7	0.17	44.6	44.6	5.7
System SW Products	0.2	7.6	0.13	34.1	34.1	7.6
Turnkey Systems	0.05	1.9	0.035	9.2	9.2	1.9
Equipment Services	0.02	0.8	0.015	3.9	3.9	0.8
	1	38.22	1	262.3478		



Behind the Name Game  
AN Rev. 11 Aug-00

Acronym	Usage	Comment
ASP <i>Covered by Proc. Svcs</i> <i>- Transaction Services.</i>	Application Service Provider	<u>Third-party entities that manage and distribute software-based services and solutions to customers across a wide area network from a central data center.</u>  Categories of ASP include: Enterprise ASPs that deliver high-end business applications; also Specialist ASPs – that provide applications for a specific need, such as Web site services or human resources; Vertical Market ASPs – provide support to a specific industry such as healthcare;
ESP <i>Information Service Provider.</i>	Extranet Service Provider	ASP specializing in provision of Internet-based services that manage a client's external, electronic communications, including e-mail.
BSP	Business Service Provider <i>= BPO</i>	Specialized ASP for particular business solutions and/or vertical industry markets.
MSP	Managed Service Provider	A loose label for traditional network management services delivered remotely; A group of 19 management service providers (MSPs) banded together to announce the formation of the MSP Association ( <a href="http://www.mspassociation.org">www.mspassociation.org</a> )
EIP <i>= EIS</i>	Enterprise Information Portals	
ISP <i>= Net Svcs</i>	Internet Service Provider	
ISV <i>Soft. prod. cos.</i>	Independent Software Vendors	
BPO	Business Process Outsourcing  Business Process Operations	

(Blank)

BPM = BPO	Business Process Management	
Netsourcing	Internet-enabled outsourcing ?	
SAN	Storage Area Networks ?	
XML - SP	Extensible Markup Language	
XMP - ?	Extensible Markup Processing	
AIP	Application Infrastructure Provider	Used by Integris
ITM	Information Technology Management	Used by ProSight, Inc
EAI	Enterprise Application Integration (Integrator) EAS SI	Integrates enterprisewide package and customized s/w apps
? WSP	Wholesale Service Provider	Used by Integris
ECN	Electronic Community Networks	Synonym for electronic marketplaces, or exchanges ?

Building them

Operating them.

NOT their business unless they are independent.

- Retailer

- Distributor

Revenue falls into industry they are in - EB.





## Revised Industry Terms

TERM	OLD	REVISED
Applications Development		
Applications Management	<p>The vendor has full responsibility for maintaining and upgrading some or all of the application systems that a client uses to support business operations and may also develop and implement new application systems for the client.</p> <p>An applications management contract differs from traditional software development in the form of the client/vendor relationship. Under traditional software development services, the relationship is project based. Under applications management, it is time and function based.</p> <p>These services may be provided in combination or separately from platform outsourcing.</p>	
Applications Operations	The vendor manages and operates the computer systems to perform the client's business functions, and is also responsible for maintaining (or developing and maintaining), the client's application systems.	
Business Continuity Services		<i>The vendor provides electronic disaster-recovery, database and data warehousing services that enable business to survive unexpected disruptions to their ordinary IT functions.</i>
Business Intelligence		
Business Operations		<i>Synonym for Business Process Operations</i>
Business Process Operations	Business operations outsourcing	



	<p>(also known as business outsourcing or functional outsourcing) denotes a relationship in which one vendor is responsible for performing an entire business/operations function, including the information systems outsourcing that supports it.</p> <p>The information systems outsourcing content of such a contract must be at least 30% of the total annual expenditure in order for INPUT to include it in the outsourcing market. Examples of business operations that are outsourced include telephone company billing and employee benefits processing.</p>	
Content Providers		
Customer Relationship Mgmt		
Data Center Management / Hosting		
Data mining		
Data warehousing		
Database management		
Desktop Services	<p>The vendor assumes responsibility for the deployment, maintenance, and connectivity among the personal computers and/or workstations in the client organization. The services may also include performing the help-desk function. Equipment as well as services can be part of a desktop services outsourcing contract.</p> <p>Note: This type of client service can also be provided through traditional professional services where the contractual criteria of outsourcing are not present.</p>	
Electronic Banking	Electronic banking is the application of IT to enable customers to carry out banking	



	<p>functions directly through computer networks. Electronic banking includes all the major banking functions: Retail Banking, including Home Banking; Wholesale or Commercial Banking including Cash Management and similar services; Trust and Investment Services.</p> <p>A particular emphasis is on the impact of digital money. Because of the relationship of e-banking with electronic commerce, there is a strong emphasis on the analysis of the payment process which involves banks, but is not strictly banking.</p>	
Electronic Billing Payment & Presentment		<i>(EBP&amp;P) electronic services that enable sellers to bill buyers, and buyers to make payment electronically; may be provided by banks or other financial services vendors.</i>
Electronic Business	Electronic Business is the embedding of IT into a business or other organizational process in order to enable that process to operate. It differs from the old model whereby IT was used to support the operation of such a process. A critical difference is whether or not the process can operate at all if the IT system is inoperable.	
Electronic Business Support & Services	Comprising activities that either operate a business process directly (Business Process Operations), or support that operation, including "customer services and support" to keep the EB operating through disasters, upgrades and routine maintenance events; operational services, includes outsourcing, computer processing services and network services	
Electronic Commerce	Electronic commerce is the use of IT systems to carry out the interorganizational business	



	processes of buying and selling goods and services.	
Electronic Exchanges		<p><i>Also called Electronic Community Networks (ECN), or e-marketplaces, electronic exchanges are typically organized on a many-to-many configuration; they enable procurement and e-commerce transactions by posting requests for bids (buyer-oriented) and/or available merchandise (supplier-oriented).</i></p> <p><i>Exchanges may actively manage user transactions, or merely enable them by linking participants effectively.</i></p>
Electronic Government	Electronic government is the application of IT to enable agencies and their publics to carry out government functions directly through computer networks, including payments, voting, and procurement.	
Enterprise Application Solutions	Enterprise Applications Solutions are IT systems based on software packages from companies such as SAP, Baan, Oracle and Peoplesoft. This software includes Enterprise Resource Planning (ERP) and similar software: also included is customer management systems (CMS).	<i>CMS = CRM?</i>
Environmental Services	Comprising equipment and data center-related special services such as cabling, air conditioning and power supply, equipment relocation, and similar services.	<p><i>Comprising equipment and data center-related special services such as cabling, air conditioning and power supply, equipment relocation, and similar services. Includes all planning and implementation services that affect the environments in which computer platforms are expected to run.</i></p> <p><i>By extension, these services may include IT-related real estate and facilities management.</i></p>
Hubs		Specialized electronic exchanges





		<p>organized on a many-to-many configuration for the purpose of linking multiple members of an industry, or organization, to multiple electronic resources.</p> <p>Typically, hubs include procurement and/or e-commerce capabilities.</p>
Infomediaries		
Infrastructure Management		<i>Outsourcing vendor takes comprehensive responsibility for an enterprises data center (either on-site or remote) and related networking, including the applications operations.</i>
Internet-related advertising and promotion		
IT Customer Services & Support	Comprising computer and communications; equipment and software; environmental services; maintenance; call centers, helpdesk, interactive services; non-IT services.	
Knowledge Management		
Logistics		
Network Management	The vendor assumes responsibility for operating and managing the client's data communications systems. This may also include the client's voice communications resources. A network management outsourcing contract may include only the management services or it may cover the full costs of the communications services and equipment plus the management services as well as voice/data convergence, IP telephony configuration and services.	
Network Management		
Network Services	Comprising a variety of telecommunications-based functions and operations, including those related to the	



	<p>Internet.</p> <p><i>Electronic information services</i> are databases that provide specific information via terminal- or computer-based inquiry, including topics such as stock prices, legal precedents, economic indicators, periodical literature, medical diagnosis, airline schedules, and automobile valuations.</p> <p><i>On-line Databases</i> - Structured, primarily numerical data on economic and demographic trends, financial instruments, companies, products, materials, etc.</p> <p><i>On-line News (Text) Services</i> - Unstructured, primarily textual information on people, companies, events, etc. These are most often news services.</p>	
Operational Services	Comprising services that provide continuous computers/network operations and/or support such as IT outsourcing, Business Process Operations; processing services; network services, ISPs; other services.	
Other Processing Services	The vendor provides a service—usually at the vendor site—such as scanning and other data entry services, laser printing, CD preparation or other data output services. This category also includes backup, contingency and disaster-recovery services.	
Outsourcing	Outsourcing is a long-term (greater than one year) relationship between a client and a vendor in which the client delegates all, or a major portion, of an operation or function to the vendor. The operation or function may either be solely information systems outsourcing-based, or include information systems outsourcing as a major component (at least 30%) of the	



	operation.	
Platform Operations	The vendor manages and operates the computer systems, to perform the client's business functions, without taking responsibility for the client's application systems.	<i>Delete as obsolete; use Infrastructure Management</i>
Portals		<p><i>A Web site or service that offers a broad array of resources and services, such as e-mail, forums, search engines, and on-line shopping malls. The first Web portals were online services, such as AOL, that provided access to the Web.</i></p> <p><i>Typically, portals have many-to-one configurations whereby many users use a single portal to access aggregated electronic resources.</i></p>
Processing Services		
Professional Services	<p>Includes: IT Consulting - Services include information technology consulting (related only to information systems, and not general business consulting) in a broad range of areas, including planning, design, audit, evaluation and analysis; information systems re-engineering; feasibility analysis and cost-effectiveness studies; and project management assistance. Services may be related to any aspect of the information system, including equipment, software, networks and outsourcing.</p> <p>Education and Training - Services that provide training and education or the development of training materials related to information systems and services for the information systems professional and the user, including computer-aided instruction, computer-based education, and vendor instruction of user personnel in operations,</p>	

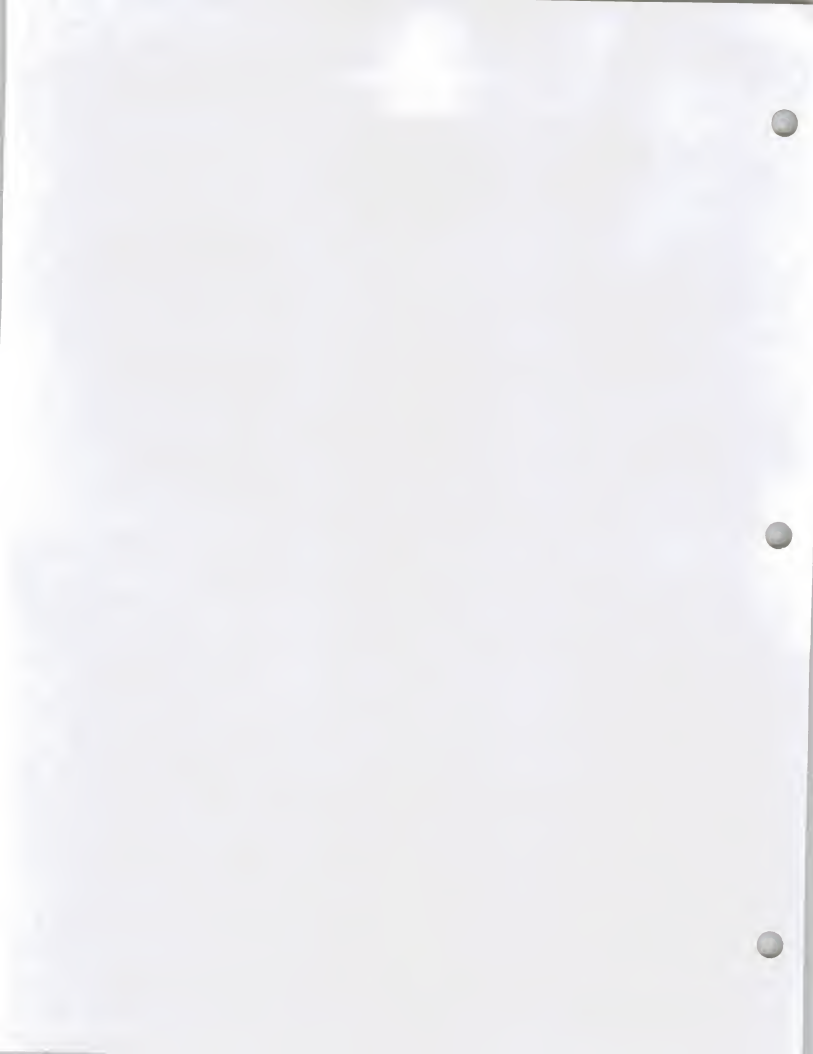


	<p>design, programming, and documentation. Education and training provided by school systems is not included. General education and training products are included as a cross-industry market sector.</p> <p>Software Development - Services include user requirements definition, systems design, contract programming, documentation, and implementation of software, performed on a custom basis. Conversion and maintenance services are also included.</p>	
Sales Force Management		
Security services		
Supply Chain Management		
Systems Integration	<p>Systems integration is a vendor service that provides a complete solution to an information system, networking, or automation development requirement through the custom selection and implementation of a variety of information system products and services. A systems integrator is responsible for the overall management of a systems integration contract and is the single point of contact and responsibility to the buyer for the delivery of the specified system function, on schedule and at the contracted price.</p>	
Systems Software		
Transaction Processing	<p>The client uses vendor-provided information systems—including hardware, software and/or data networks—at the vendor or customer site to process specific applications and update client databases. The application software is typically provided by the vendor.</p>	
Turnkey Systems		<i>Delete as obsolete?? Subsumed</i>





		<i>by BPO, SI and Professional Services?</i>
Utility Processing	The vendor provides basic software tools that enable clients to develop and/or operate their own programs, or process data on the vendor's system.	
Portals		<p><i>An industry-specific Web site or service that offers a broad array of resources and services, such as e-mail, forums, search engines, and on-line shopping malls.</i></p> <p><i>Typically, portals have many-to-one configurations whereby many users use a single portal to access aggregated electronic resources.</i></p>
Web-hosting		<p><i>The vendor provides access to a data center, or specialized IT facility, for the purpose of enabling the remote operation of a Web site.</i></p> <p><i>Typically, vendors provide a range of related services—at minimum for security and network optimization.</i></p>



Name	Phone	Name	Position	Fax	E-mail	Secy/Assi
Marriott Langley	01753 544 244					
"WIZARD WIRE"	800-321-8877					
ABB INFORMATI	49 621 3813265	RUDOLF SCHLAFFKE MD		49-621-3812434		
Abbott Fred	203-321-2143	ex gartner				
ABBOTT TONY	212-686-5558					
ABC TV Network	212-456-7392	Bryce Rathbone, Laura, VP and Director				77 w66 st
ABC TV Network	212-456-7628	Mike Dobester internet				
ACA	03-3437-0124	JACK AZAGURY □ EX IC		03-3437-0419		
ACA	3437-0924 0921 □	KUMIKO MORISAWA				
ACCEL PARTNER	989-5656	ARTHUR PATTERSON □ i embarcadero		3820 □ caroline		
ACS	214-841-6139	HENRY HORTENSTEIN □ ACQUISITION				
adia services		jon rowberry □ roy haggerty				
ADP	201-535-7634	JEFF LAMB				
ADP	201-994-5000	ART KRANSELER □ JOHN GAULDING □ PHILIP GRIFFITHS				
ADP	201 994-5898	MIKE REECE		201 994-5994		
ADP BROKERAG	201-714-3266	BOB CASALE □ MARK SCHLESINGER □ ALEX BROWN □ EDS				
ADP DEALER SE	708-397-1700	GARY BUTLER				
ADP EMPLOYER	201-994-5981	MARTIN READER				
ADP GSI	45 02 73 58	Philippe Gluntz Chairman				
ADP GSI	45 02 74 75	Jacques Valet Vice Chair		45 00 59 43		
advantis internet	404-835-9091	Dave Bishop sr advisor		404-516-5 sdbishop □ vnet.ibm.c		
advent INTL	358-0525	PO CHI WU PhD		358-0801		
ADVO	203-285-6100	LARRY MORRIS □ 1 UNIVAC LANE □ WINDSOR CT □ 91S TO EXIT				
Agorics	415-941-8224	Ann Hardy President		415-941-8 annh □ netcom.com		
AimTech	603-883-0220	Usman Ismail				
ALANI	853-1953 □ 323-69	HARRY REINSTEIN □ MARC FEY LOS GATOS □ (FOUNDED XASY				
alcatel	1 69 81 13 11	Paul Caizergues adm dir		m 69 20 55 29		
Alcatel Telecom	33 1 40 58 56 47	Pierre van Raemdonck Director		m 40 58 54 4 vanraemdonck □ ahqp		
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Alexander Commi	415 923 1660	Pam Alexander		9863 palexa □ al ETRE		
alison assoc	0734-757757	Maryrose Loxley				
ALLDATA	49-89-45-51-1125	DR.ROSETTE □ MUNICH		49-89-627-66626		
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AMDAHL	408-746-6329	CRAIG LEWIS				
AMDAHL FRANC	47-65-79-45	JEAN BAILLAVOINE DIR SOUTH		47-65-79-05		
AMDAHL FRANC	47 65 78 77	MICHEL FIRMIN □ SERVICES MKTG MANAGER				
Amdahl Gene	691-4479	with Bill O'Connell				1983 landi
AMERICAN EXPR	212-640-4451	DAVID WALKER				
AMERICAN EXPR	617-382-9977	ray mobley LEFT □ JIM FOX, GUY BATTISTA				
American Express	212 640 1641	thayer stewart				
AMERITECH	614 793-5520	PETER TAGLIA				
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AMR	817 540-6010	MAX HOPPER				
AMS THURBER	303-231-3685 □	JERRY THURBER BEVERLEY (CAROLINE'S SISTER)				
ANACOMP	317-842-9921	FRED WILLIAMS □ VP MICROGRAPHICS SERVICES DIVN				
Analytical Graphic	215 667 9090	John Kaiser PRESIDENT				From Geor
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ANDERSEN CONS HEALTH		DAVID REY HEALTHCARE □ DON MONACO □ JOHN RANDS SEAT				



Andersen Cons. B	47 22 12 7000	Tore Magnussen	Associate Partner	
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ANDERSEN CON	312-507-5666	SCOTT MORRISON		
ANDERSEN CON	212-708-4785	joellin comerford	outsourcing manager	
ANDERSEN CON	71-438-3835	Mark Otway	Outsourci	71 438 5157 Noreen 4
ANDERSEN CON	212 708 4505	jon cOnahan		Noreen Mc
ANDERSEN CON	312-507-9597	ED SCHRECKK TECH	Michele Cacdac marketing of tech.	
Andersen Consulti	212-708-4598	Jim Murphy	Managing	6126 CACA
Andersen Consulti	0171 438 5462	Philippe Ruttens		5757
ANDERSEN CON	312-507-6668	MARTHA JAMESON	PROGRAMS	
ANDERSEN CON	312 507-5156	david deal		312-507-2548
Andersen Consulti	91-596 6000	Pedro Navarro	Socio Dire	6695
Andersen Consulti	91-596 6000	Felipe Marcos Balleste	Socio	6695
Andersen Consulti	91-596 6000	Gil gidron	Socio Dire	6695
ANDERSEN EAG	312 507-8548	JIM ADAMCZYK	MACHAEL AAB	312 507-2548
ANDERSEN EAG	312-507 8743	TOM MOLDAUER		312-507-0510
ANDERSEN FOU	312-507-9597	JENNIFER BURROWES		
Andersen Maritim	44 171 30 48658	Craig Smith	Marketing	48455
Andersen Maritim	44 171 438 5682	Tim Gbedenah	Partner	3048455
ANDERSEN RES	312-507-2477	BABY 4WKS FROM 10 1 94	MARTHA JAM	312-507-2548
ANDERSEN US	415-843-2112	JACKSON WILSON	INDUSTRIES	DAVID RAY HEALTH CARE
Annex Research	602 956 8586	Bob Djurdjevic		956 8594
ANSBACHER	212 688-5544	CHRISTOPHER SNOW	DEREK GOODMAN	
APPLE ABS	408-862-5444	MORRIS TARADALSKY		
Apple Computer	31 55 382 100	Willem Poterman	Mktg Mngr	31 55 339 willem1@apple.com
appleton dan	914-682-5955	tony carter, george hei	vp	914-682-5945
APLICON	313-995-6125	WARREN LIU	ANN ARBOR, MI	
ASHISUTO	03-3437-0924	MARI OHNO SEC 3771-0981	NOBU FURUI PR	
ASHISUTO NEI	415-821-2614	KAZUMI NEI	IN SFO	
ASHTON TATE	213 538-1801	PETE BOOT		
AT&T	908-204-8737	BOB LEJEUNE		
AT&T	202-457-3855	PHIL SERVICE	WASH	FORMAN
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Name (Pre, Last, 1st & Suf), Salute Title (Position)	Company Name Telephone Number	Address City, State (Province, Country), Zip	Serial # Customer Type	Date Added Date Updated
Mr. Kelley, Robert,, Managing Partner Govt. Affairs	ANDERSEN CONSULTING (312) 507-2224	69 W. Washington St. Chicago, IL 60602	29698 V	05-02-91
Mr. Kennedy, Ed., Partner	ANDERSEN CONSULTING (312) 580-0033	33 W. Monroe St. Chicago, IL 60603	18775 V	09-10-88 06-07-91
Mr. Krauss, Michael C., Manager in Marketing Practice Asso. <del>PARINIX</del>	ANDERSEN CONSULTING (312) 580-0069	69 W. Washington St., Room 2057 Chicago, IL 60602	9545 V	12-11-86 06-07-91
Mr. Markley, Colin J., Div. Head, Products	ANDERSEN CONSULTING (312) 580-0033	33 W. Monroe St., Room 1725 Chicago, IL 60603	12486 V	02-01-88 06-29-90
Ms. McKee, Mary Ellen, Manager Asso. <del>PARINIX</del>	ANDERSEN CONSULTING (312) 507-6559	69 West Washington Street, Room 1506 Chicago, IL 60602	26134 V	06-21-90 07-22-91
Mr. Monaco, Donald,, Managing Partner	ANDERSEN CONSULTING (312) 507-7752	33 West Monroe Chicago, IL 60603	21588 V	07-28-89 03-20-91
Mr. Moon, David,, Marketing Manager	ANDERSEN CONSULTING (312) 507-2375	69 W. Washington Chicago, IL 60602	26009 V	06-14-90
Mr. Neill, Terence V.,, Manager Director Market Devel	ANDERSEN CONSULTING (312) 580-0069	69 W. Washington St. <del>LOWSON</del> Chicago, IL 60602	17855 V	08-09-88 06-07-91
Mr. Pierce, Wayne,, Senior Software Intelligence Asso. <del>PARINIX</del> , Product	ANDERSEN CONSULTING (312) 580-0033	33 W. Monroe St. 69. Chicago, IL 60603	17351 V	07-15-88 06-11-91
Mr. Rodgers, John P.,, Manager, Marketing Consulting	ANDERSEN CONSULTING (312) 580-0069	69 West Washington Chicago, IL 60602	26178 V	06-26-90 07-22-91
Mr. Ryan, Hugh,, New Age Systems Group Partner	ANDERSEN CONSULTING (312) 580-0033	100 South Wacker Drive, 6th Floor Chicago, IL 60606	29834 V	05-10-91
Ms. Sasso, Mary Beth,, Business Development Partner	ANDERSEN CONSULTING (312) 507-5949	33 West Monroe Chicago, IL 60603	21589 V	07-28-89 08-24-90
Mr. Shaheen, George T.,, Managing Partner	ANDERSEN CONSULTING (312) 580-0069	69 West Washington Street Chicago, IL 60602	27105 V	08-16-90 06-07-91
Mr. Singer, Steve,, Consulting Manager	ANDERSEN CONSULTING (312) 507-7893	33 West Monroe Chicago, IL 60603	21586 V	07-28-89 08-24-90
Mr. Smith, John D.,, Partner <del>PARINIX</del> <del>PARINIX</del>	ANDERSEN CONSULTING (312) 507-9388	69 W. Washington St., Room 1507 Chicago, IL 60602	30671 V	05-31-91
Ms. Stone, Marilyn,, Software Intelligence Supvr Asso. <del>PARINIX</del>	ANDERSEN CONSULTING (312) 507-4090	69 W. Washington St., Suite 1035 Chicago, IL 60602	15266 V	05-26-88 06-07-91
Ms. Taillon, Marilyn,, Information Center Manager	ANDERSEN CONSULTING	3755 E. Main Street St. Charles, IL 60174	23425 V	02-15-90 06-07-91

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Name (Pre, Last, 1st & Suf), Salute Title (Position)	Company Name Telephone Number	Address City, State (Province, Country), Zip	Serial # Customer Type	Date Added Date Updated
Ms. Daugherty, Bella,, Director Telecom Industry Mkt.	AMERITECH SERVICES (312) 906-4970	500 W. Madison, Suite 2800 Chicago, IL 60606	18138 V	08-17-88 06-13-91
Ms. Inglish, Karen,, Manager of Information Service	AMERITECH SERVICES (312) 605-3335	1900 E. Golf Rd. L-16 Schaumburg, IL 60173	26084 V	06-20-90 06-07-91
Mr. Cogswell, Ed,, Manager-Information Center	AMOCO CORPORATION (312) 856-6111	200 E. Randolph, MC# 2301 Chicago, IL 60601	29354 V	04-29-91 07-05-91
Mr. Willis, Bob,, Technical Evaluation & Stds.	AMOCO CORPORATION (312) 856-6111 X4434	200 E. Randolph Dr., MC #1003 Chicago, IL 60601	31249 V	07-19-91
SI Mr. Ahern, Robert,, Partner	ANDERSEN CONSULTING (312) 507-7852	33 W. Monroe St. Chicago, IL 60603	21770 V	07-31-89 06-12-91
Mr. Battle, A. George,, <i>SKIP</i> Manager <i>MANAGER</i>	ANDERSEN CONSULTING (312) 580-0069	69 W. Washington St. Chicago, IL 60602	30670 V	05-31-91
<i>MANAGING DIR. MKT. DEVELOPMENT</i> Mr. Bonar, Challen,, <i>SKIP</i> Partner	ANDERSEN CONSULTING (312) 580-0069	69 W. Washington St. Chicago, IL 60602	29697 V	05-02-91
Mr. Bott, Harold S.,, <i>RET</i> Partner <i>? RETIREE S/I</i>	ANDERSEN CONSULTING (312) 507-6501	33 W. Monroe Chicago, IL 60603	21256 V	05-08-89 07-03-91
Mr. Bottom, Roger,, <i>?</i> Partner <i>MANAGER FOUNDATION</i>	ANDERSEN CONSULTING (312) 580-0069	69 W. Washington St. Chicago, IL 60602	29122 V	04-22-91 06-11-91
Mr. Cornelison, Stan,, Sr. Partner, <i>Part-Matters</i> <i>SA. QUALITY OFFICER</i>	ANDERSEN CONSULTING (312) 580-0033	69 W. Washington Street, 35th Floor Chicago, IL 60602	20899 V	04-21-89 06-07-91
Ms. Davis, Jean,, Andersen Consulting Research <i>MANAGER</i>	ANDERSEN CONSULTING (312) 580-0069	69 W. Washington Street, 9th Floor Chicago, IL 60602	15267 V	05-26-88 08-08-91
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Mr. Ferguson, Glover,, Foundation Product Director <i>MANAGER</i>	ANDERSEN CONSULTING (312) 570-6502	69 W. Washington St. Chicago, IL 60602	29120 V	04-22-91 05-02-91
Mr. Fischer, Jim,, Managing Partner	ANDERSEN CONSULTING (312) 507-8336	69 W. Washington Chicago, IL 60602	23262 V	01-25-90 06-12-91
Mr. Fiske, Thomas A.,, <i>FKTG</i> Partner <i>?</i>	ANDERSEN CONSULTING (312) 507-2351	69 West Washington Street Chicago, IL 60602	26236 V	06-29-90 06-07-91
Mr. Ginsburg, Lyle,, Manager <i>MANAGER</i> , <i>→ SKIP</i> <i>TELECOM</i>	ANDERSEN CONSULTING (214) 780-2903	Chicago World Headquarters, 69 West Washington Chicago, IL 60603	14495 V	04-25-88 06-12-91
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